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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/195,129	11/18/1998	JIAN ZHOU	A-66713/WSG/	3991

24341 7590 10/02/2002

Pennie & Edmonds, LLP
3300 Hillview Avenue
Palo Alto, CA 94304

EXAMINER

GRIER, LAURA A

ART. UNIT

PAPER NUMBER

2644

DATE MAILED: 10/02/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/195,129

Applicant(s)

ZHOU ET AL.

Examiner

Laura A Grier

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,2,8,13 and 14 is/are rejected.
- 7) ☐ Claim(s) 3-7,9-12 and 15-18 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

2. The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. **Claims 1 and 2** are rejected under 35 U.S.C. 102(e) as being anticipated by Hildebrand, U. S. Patent No. 5727074.

Regarding **claim 1**, Hildebrand discloses a method and apparatus for digital filtering of audio signals. Hildebrand's disclosure comprises a computer program in a Program ROM for computing a digital filter of a digital equalizer, wherein the filter is generated based on the type of audio reproduction device and components that are need for adequate function of the device, and outputs a signal to a speaker or speaker system, wherein the device may be a multimedia computer with an accompanying speaker or speaker system which depends on the type of connectors and wiring being used to for proper installation and audio broadcasting via the speaker system (col. 7, lines 40-67 and col. 8, lines 1-11, 60-67, col. 9, lines 1-24 and col. 11,

lines 1-9, and figures 2-6), all of which constitutes a memory comprising instructions for a computer to determine a speaker, selecting and/or generating a set of filter coefficients based on the speaker type, and providing a digital equalizer, which is parallel to a parametric equalizer with a digital filter.

Regarding **claim 2**, Hidebrand further discloses support of the operator or use providing filter/equalizer parameters and calculating a set of filter coefficients base on the parameter input by the operator/user (col. 10, lines 57-67 and col. 11, lines 1-33).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claim 8** is rejected under 35 U.S.C. 103(a) as being unpatentable over Hildebrand in view of Wood, U. S. Patent No. 6178514.

Regarding **claim 8**, Hildebrand discloses a method and apparatus for digital filtering of audio signals. Hildebrand's disclosure comprises a computer program in a Program ROM for computing a digital filter of a digital equalizer, wherein the filter is generated based on the type of audio reproduction device and components that are need for adequate function of the device, and outputs a signal to a speaker or speaker system, wherein the device may be a multimedia computer with an accompanying speaker or speaker system which depends on the type of connectors and wiring being used to for proper installation and audio broadcasting via the

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speaker system (col. 7, lines 40-67 and col. 8, lines 1-11, 60-67, col. 9, lines 1-24 and col. 11, lines 1-9, and figures 2-6), all of which constitutes a memory comprising instructions for a computer to determine a speaker, selecting and/or generating a set of filter coefficients based on the speaker type, and providing a digital equalizer, which is parallel to a parametric equalizer with a digital filter. Further, Hildebrand discloses support of the operator or use providing filter/equalizer parameters and calculating a set of filter coefficients base on the parameter input by the operator/user (col. 10, lines 57-67 and col. 11, lines 1-33). However Hildebrand fails to specifically disclose the loudspeaker or speaker of the computer being a Universal Serial Bus (USB) loudspeaker. The examiner maintains that a USB loudspeaker was well known in the art as taught by Wood.

Regarding the USB loudspeaker, in a similar field of endeavor, Wood discloses a method and apparatus for connecting a device to a bus carrying power and a signal. Wood's disclosure comprises a personal computer using USB circuitry, like a USB loudspeaker (figures 1 and 2 and col. 1, lines 66-67 and col. 2, line 1, col. 9, lines 26-38).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Hildebrand by incorporating computer peripherals such a USB loudspeaker for the purpose of optimizing the function of the computer in regards to a multimedia type computer producing quality audio output (stereo) by providing the system with efficient audio equalization, wherein the USB loudspeaker are one of several common types of speakers that may be used as computer speakers.

6. **Claims 13 and 14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hildebrand in view of Wood.

Regarding claim 13, Hildebrand discloses a method and apparatus for digital filtering of audio signals. Hildebrand's disclosure comprises a computer program in a Program ROM for computing a digital filter of a digital equalizer, wherein the filter is generated based on the type of audio reproduction device and components that are need for adequate function of the device, and outputs a signal to a speaker or speaker system, wherein the device may be a multimedia computer with an accompanying speaker or speaker system which depends on the type of connectors and wiring being used to for proper installation and audio broadcasting via the speaker system (col. 7, lines 40-67 and col. 8, lines 1-11, 60-67, col. 9, lines 1-24 and col. 11, lines 1-9, and figures 2-6), all of which constitutes a memory comprising instructions for a computer to determine a speaker, selecting and/or generating a set of filter coefficients based on the speaker type, and providing a digital equalizer, which is parallel to a parametric equalizer with a digital filter. However, Hildebrand fails to specifically disclose the loudspeaker or speaker of the computer being a Universal Serial Bus (USB) loudspeaker. The examiner maintains that a USB loudspeaker was well known in the art as taught by Wood.

Regarding the USB loudspeaker, in a similar field of endeavor, Wood discloses a method and apparatus for connecting a device to a bus carrying power and a signal. Wood's disclosure comprises a personal computer using USB circuitry, like a USB loudspeaker (figures 1 and 2 and col. 1, lines 66-67 and col. 2, line 1, col. 9, lines 26-38).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Hildebrand by incorporating computer peripherals such a

USB loudspeaker for the purpose of optimizing the function of the computer in regards to a multimedia type computer producing quality audio output (stereo) by providing the system with efficient audio equalization, wherein the USB loudspeaker are one of several common types of speakers that may be used as computer speakers.

Regarding **claims 14**, Hildebrand further discloses support of the operator or use providing filter/equalizer parameters and calculating a set of filter coefficients base on the parameter input by the operator/user (col. 10, lines 57-67 and col. 11, lines 1-33).

Allowable Subject Matter

7. **Claims 3-7, 9-12 and 15-18** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

8. Applicant's arguments with respect to claim 1-18 have been considered but are moot in view of the new ground(s) of rejection.

The applicant argues that the combination the previous prior art fails to provide adequate support of the claimed invention and fails to provide suggestion or motivation to combine. Thus, the examiner has provide another rejection of providing digital equalization to a computer system based on the type of connecting and functions peripherals, such the bus, connectors, wiring and speakers, etc., and further provide support of personal computers using USB loudspeakers.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura A Grier whose telephone number is (703) 306-4819. The examiner can normally be reached on Monday - Friday, 7:30 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W. Isen can be reached on (703) 305-4386.

Any response to this action should be mailed to:


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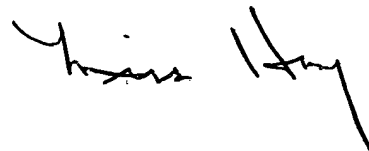
Or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

LAG 
September 27, 2002



**MINSUN OH HARVEY
PRIMARY EXAMINER**